

REMARKS

Claims 1-26 are pending in the current application. Claims 22-26 have been allowed. Claims 1 and 22 are independent claims.

Allowable Subject Matter

Initially, Applicants wish to thank the Examiner for the indication of claims 22-26 being allowed. Applicants also thank the Examiner for the indication of allowable subject matter regarding claims 12-13 and 16-19.

Drawings

The Examiner objects to the drawings under 37 CFR 1.83(a) as not showing every feature of the invention specified in the claims. The Examiner asserts that the “polarizer of claim 16” is not depicted in the drawings. Applicants disagree.

A polarizer 202 is illustrated in FIG. 8 of the current application.

Applicants respectfully request the Examiner withdraw this rejection.

Claim Rejections – 35 U.S.C. § 102 (AAPA and Taniuchi)

Claims 1-8, 10-11, 14-15, and 20 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Applicants Admitted Prior Art (AAPA) and Taniuchi (US 4,554,449, hereinafter Taniuchi). Applicants respectfully traverse this art grounds of rejection.

The Examiner asserts that the AAPA discloses a photoelectric converter “for converting into an electrical value an angle of rotation of the plane...of the ...light after it exits said optical fiber” (Office Action, page 4). Applicants disagree.

The current application clearly recites “connection of ... a photoelectric converter through a single optical fiber” and further recites “it is impossible to compensate for a variation” in such an apparatus (para. [0016], lines 1-12). Therefore, the current application clearly states that a single optical fiber system utilizing a photoelectric converter has variation problems that are “impossible” to compensate for.

As such, the AAPA does not disclose or suggest “a photoelectric converter for...linearly polarized light” and “a plurality of optical fibers for transmitting...to said photoelectric converter” as recited in independent claim 1 (emphasis added).

Furthermore, it is quite clear that the AAPA does not disclose or suggest “a plurality of optical fibers ... transmitting ... the ordinary ray ...to said photoelectric converter” and “transmitting the extraordinary ray...to said photoelectric converter” as also recited in independent claim 1.

The Examiner further asserts that the AAPA discloses “a maintaining means ... adapted to maintain said plurality of optical fibers with a gap of a predetermined size” (Office Action, page 4). Applicants disagree.

The current application clearly states that “[a]ligning the lenses 7 and the optical fibers is time-consuming” (para. [0011]). Therefore it is clear from the application that it is time consuming to align lenses and optical fibers in the conventional apparatus illustrated in FIG. 11 (para. [0011]) while a maintaining means is not disclosed.

Therefore, the AAPA cannot disclose or suggest “a maintaining means adapted to maintain said plurality of optical fibers with a gap of a predetermined size being formed therebetween” as recited in independent claim 1.

Furthermore, it is clear that the AAPA does not disclose or suggest:

...said maintaining means comprises a gap maintaining member for maintaining said optical fibers parallel to each other with the gap of a predetermined size being formed there between, the ends of the plurality of optical fibers maintained in parallel by said gap maintaining member respectively receive the ordinary and extraordinary rays which are outputted in parallel from the birefringent member.

(Claim 1, emphasis added)

Therefore, the AAPA does not disclose or suggest the features of independent claim 1.

Furthermore, Taniuchi does not make up for these deficiencies. Therefore, the references do not teach each and every feature of independent claim 1.

As such, claims 2-21, dependent upon independent claim 1, are likewise allowable over the AAPA and Taniuchi at least for the reasons set forth above with regards to independent claim 1.

Applicants respectfully request the Examiner withdraw this art grounds of rejection.

Claim Rejections – 35 U.S.C. § 103 (AAPA and Taniuchi)

Claims 1-8, 10-11, 14-15, and 20 stand rejected under 35 U.S.C. § 103 (a) as being obvious over the AAPA and Taniuchi. Applicants respectfully traverse this art grounds of rejection.

The Examiner asserts that the AAPA discloses a photoelectric converter “for converting into an electrical value an angle of rotation of the plane...of the ...light after it exits said optical fiber” (Office Action, page 4). Applicants disagree.

As discussed above, the current application clearly states that a single optical fiber system utilizing a photoelectric converter has variation problems that are “impossible” to compensate for.

As such, the AAPA does not suggest “a photoelectric converter for...linearly polarized light” and “a plurality of optical fibers for transmitting...to said photoelectric converter” as recited in independent claim 1 (emphasis added).

As also discussed above, it is clear from the current application that it is time consuming to align lenses and optical fibers in the conventional apparatus illustrated in FIG. 11 (para. [0011]).

Taniuchi simply discloses that two optical fibers are “disposed so that their centers are spaced apart by a distance of 250 μm ” (col. 3, lines 6-8). It is presumable that this spacing is necessary due to rutile plates 11,12, employed at the end of the fibers, being designed to “deflect [an] extraordinary ray of about 100 μm at its emerging surface” (col. 3, lines 25-35, FIG. 3). Taniuchi does not disclose a maintaining means. Furthermore, Taniuchi does not disclose or suggest:

...said maintaining means comprises a gap maintaining member for maintaining said optical fibers parallel to each other with the gap of a predetermined size being formed there between, the ends of the plurality of optical fibers maintained in parallel by said gap maintaining member respectively receive the ordinary and extraordinary rays which are outputted in parallel from the birefringent member.

(Claim 1, emphasis added)

Therefore, even if the AAPA and Taniuchi could be combined (which Applicants do not admit), Taniuchi would not make up for the deficiencies discussed above with regards to independent claim 1.

Moreover, Applicants submit that the Examiner fails to establish a *prima facie* case of obviousness. The mere statement that Taniuchi and the AAPA could be combined or modified does not render the resultant combination obvious to one of ordinary skill in the art unless Taniuchi also suggests the desirability of the combination or modification. Absent such a suggestion, a *prima facie* case of obviousness cannot be made.

In view of the above, the AAPA and Taniuchi, alone or in any combination, do not anticipate or render independent claim 1 obvious to one skilled in the art.

As such, claims 2-21, dependent upon independent claim 1, are likewise patentable over the AAPA and Taniuchi at least for the reasons set forth above with regards to independent claim 1.

Applicants respectfully request the Examiner withdraw this art grounds of rejection.

Claim Rejections – 35 U.S.C. § 103 (AAPA, Taniuchi, and Simonelli)

Claims 9 and 21 stand rejected under rejected under 35 U.S.C. § 103 (a) as being obvious over the AAPA and Taniuchi in further view of Simonelli (US 5,272,433, hereinafter Simonelli). Applicants respectfully traverse this art grounds of rejection.

As discussed above, independent claim 1 is not obvious over the AAPA and Taniuchi, alone or in any combination. A cursory review of Simonelli reveals that even if the references were combinable (which Applicants do not admit) the resulting combination would not make up for the deficiencies discussed above with regard to independent claim 1.

As such, claims 9 and 21, dependent upon independent claim 1, are patentable over the AAPA, Taniuchi, and Simonelli at least by virtue of their dependency on independent claim 1.

Applicants respectfully request the Examiner withdraw this art grounds of rejection.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the claims in connection with the present application is earnestly solicited.

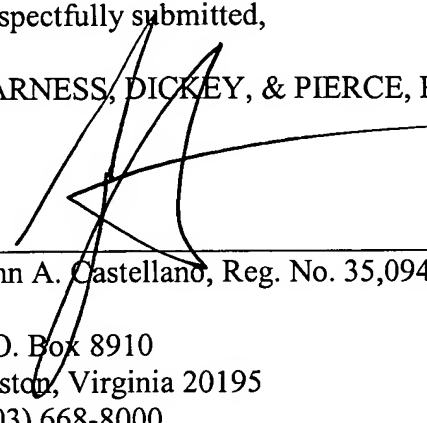
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Casellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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